

Appendix F NOAA Satellite Services – Smoke Detection

Unless otherwise indicated:

- Areas of smoke are analyzed using GOES-EAST and GOES-WEST Visible satellite imagery.
- Only a general description of areas of smoke or significant smoke plumes will be analyzed.
- A quantitative assessment of the density/amount of particulate or the vertical distribution is not included.
- Widespread cloudiness may prevent the detection of smoke even from significant fires.

Saturday, October 20, 2007

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 1600Z OCTOBER 20, 2007

US/Canada:
No significant smoke/dust can be seen in morning/early afternoon GOES 12/11 satellite imagery.

J Kibler

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY THROUGH 0100Z OCTOBER 21, 2007

California:
Fires in eastern Glenn and southwestern Yuba County in north central California emitted short puffs of thin smoke which moved very rapidly to the south through the Sacramento Valley. Farther to the south, a region of blowing dust was observed in the late afternoon and evening over southern California. The dust was most visible spreading southward across Santa Barbara and Ventura Counties and offshore over Santa Barbara Channel and over some of the Channel Islands. Another swath of blowing dust was moving southward across the San Joaquin Valley to just west of Bakersfield.



Sunday, October 21, 2007

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY
THROUGH 1615Z OCTOBER 21, 2007

Southern California:
Wildfires burning in central Santa Barbara and southern Los Angeles counties are producing moderately dense to dense smoke moving southwest off the coast. Smoke is moving over the Channel and Santa Catalina Islands and into the Pacific Ocean.
A fire in southwest San Bernardino county is producing a moderately dense plume of smoke moving southwest across Orange county and into the Pacific Ocean.
Another fire can be seen in northeast Los Angeles county, but so far no smoke is visible.

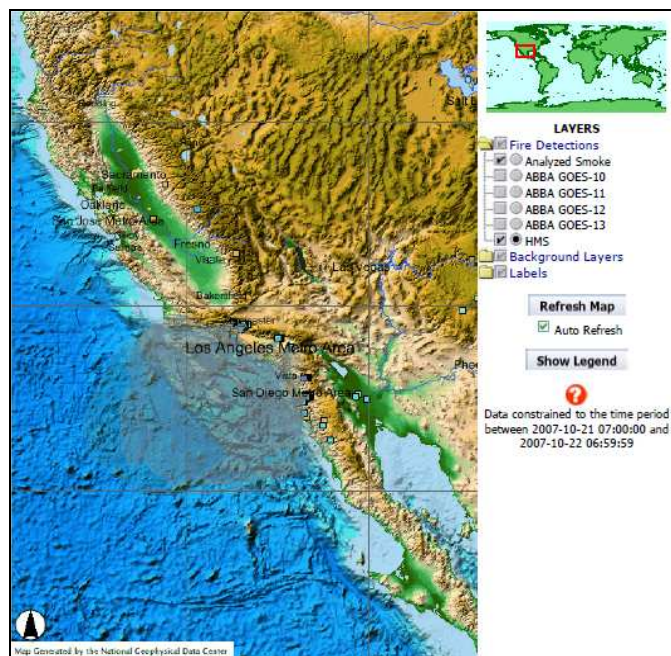
DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY
THROUGH 0115Z OCTOBER 22, 2007

Southern California and Baja California:
Wildfires exploded today over southwest California during Santa Ana conditions and have produced a widespread area of smoke. Fires developed and spread rapidly in Santa Barbara, Ventura, Los Angeles, Orange, southwest San Bernardino, western Riverside and San Diego counties and also across the border in northern Baja. The smoke was all moving rapidly to the west and southwest and by sunset had reached about 250 nmi into the Pacific west of San Diego. The fires that were producing the thickest smoke were along the Ventura/Los Angeles border near Pyramid Lake, in western Los Angeles county just north of Castaic Lake, central San Diego county near Santa Ysabel and along the southern San Diego border near Tecate. Additionally, another fire erupted in Orange county near Orange just around sunset which has precluded visual smoke detection. However, it is likely that a thick smoke plume was also being produced by this fire that was then spreading across the southern Los Angeles metro area.

A fire in central Mariposa county had a plume of light smoke that was drifting within about 15 km of the fire.

Blowing Dust:

Several areas of blowing dust were noted across the Southwest. A large area of dust was emanating from the region around the Salton Sea in southern California and blowing south into the Gulf of California. By sunset, this area of blowing dust covered the northern three-fourths of the Gulf of California. Areas of blowing dust were also originating from the west coast of Baja California. This area of dust was moving southwest into the Pacific Ocean and also mixing with smoke from the fires.



Monday, October 22, 2007

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY
THROUGH 1615Z OCTOBER 22, 2007

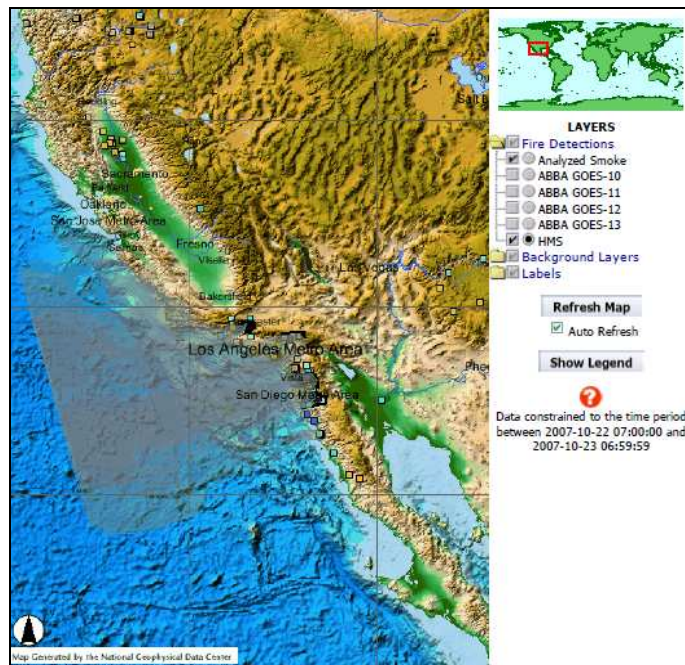
Southern California and Baja California:

Moderate to very dense smoke plumes from numerous fires in Santa Barbara, Ventura, Los Angeles, Orange, San Bernardino, Riverside and San Diego counties are moving westward into the Pacific Ocean. Newly developing smoke plumes are also observed in the mountains of southwest San Bernardino county. Widespread smoke from these fires is observed over the Pacific Ocean from San Luis Obispo County southward extending up to 500 nmi offshore. Numerous but not quite as dense plumes are also observed along the West Coast of Baja California moving westward.

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY
THROUGH 0115Z OCTOBER 23, 2007

Southern California and Baja California:

A multitude of fires continue to rage across southern California and produce a large area of smoke that extends over 1200 km into the Pacific Ocean. Much of the smoke close to the California coast is dense to very dense. The most active fires with the most smoke were seen along the Ventura/Los Angeles county border near Pyramid Lake, in western Los Angeles county, in extreme southwest San Bernardino, in Orange county near Mission Viejo, and in several locations in San Diego county. In San Diego county there was a large fire in the northwest part of the county near Fallbrook, along the southern border between Chula Vista and Tecate and a large cluster of fires extending from near Santa Isabel to near Rancho Santa Fe.



Tuesday, October 23, 2007

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY
THROUGH 1500Z OCTOBER 23, 2007

Southern California and Baja California:

Dense plumes of smoke from multiple wildfires in Southern California are continuing to move over the Pacific Ocean and extend over 500 nmi offshore.

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY
THROUGH 0200Z OCTOBER 24, 2007

California/Baja California:

The wildfires on the southwest coast of California and Baja California continue to produce a very large amount of extremely dense smoke that covers most of southwest California and can be seen moving up the coast over the Pacific Ocean. The largest fires are found in San Diego, San Bernardino and Orange counties. However, there are also fires contributing to the massive area of smoke in Ventura, Los Angeles and Riverside counties, as well as northwestern Baja California. The densest smoke from these fires is mainly found off the coast out over the Pacific Ocean, but there is a significant amount flowing across the land that is causing problems throughout the major cities in southern California.

There are also several fires in northern California that are producing light plumes of smoke that are moving to the north.



Wednesday, October 24, 2007

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY
THROUGH 1630Z OCTOBER 24, 2007

California/Baja California:
In morning imagery, the fires in San Diego county are producing very dense plumes reaching up to 75 miles to the west northwest covering much of Orange county. The densest smoke from the fires in Bernardino county is once again starting to cross into Los Angeles county. Moderately dense remnant smoke from last night covers the coast from northern Santa Barbara county down to the Mexico border and stretches about 1000 miles to the southwest over the Pacific.

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY
THROUGH 0215Z OCTOBER 25, 2007

California/Baja California:
The large wildfires throughout San Diego, San Bernardino, Riverside and Los Angeles counties continue to produce massive amounts of extremely dense smoke. The smoke is spreading local to the large fires and then eventually moving to the west out over the Pacific Ocean. Visible smoke can be seen extending 1600 KM off the California coastline. The densest smoke is hovering over the coast just north of San Diego.



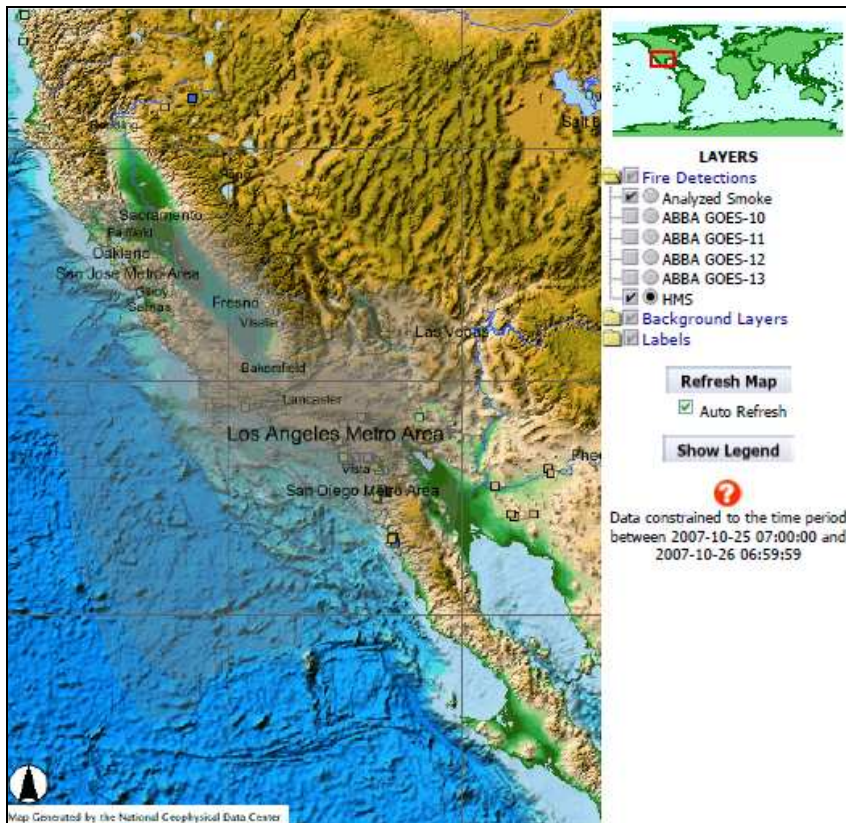
Thursday, October 25, 2007

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY
THROUGH 1530Z OCTOBER 25, 2007

California/Baja California:
Wildfires in Southern California continue to produce smoke that is remaining over much of southwest California and northern Baja California coast, as well as remanant smoke that moved onshore and is now over much of the San Joaquin Valley.

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY
THROUGH 0200Z OCTOBER 26, 2007

California/Baja California:
The large fires in southwest California and northwest Baja California continue to burn and produce massive amounts of smoke. The smoke is not nearly as dense as it has been over the previous days and the smoke is now moving inland over the entire southern half of California, into southern Nevada and western Arizona. The densest smoke can be found in Riverside and San Bernardino counties. The largest fire is found on the border of Orange and Riverside counties.



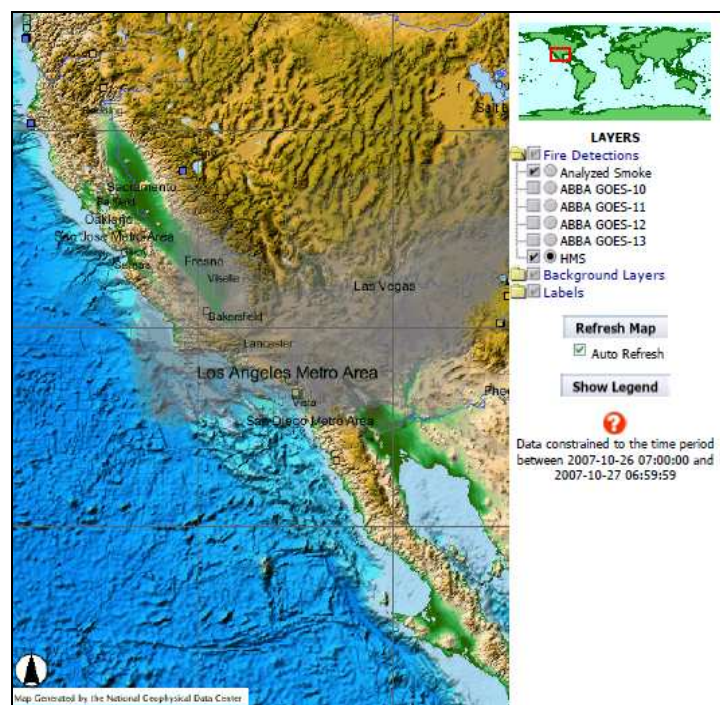
Friday, October 26, 2007

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY
THROUGH 1600Z OCTOBER 26, 2007

California/Nevada/Arizona/Utah:
Smoke from the large southern California wildfires was moving primarily in a northeasterly direction this morning. The large mass of smoke visible in satellite imagery covered much of south central and southern California as well as southern Nevada, portions of western Arizona, and southwestern and central Utah. Some lingering smoke also likely extended offshore, but little of this could be seen due to extensive cloud cover offshore. Within the large mass of smoke, more dense areas of smoke were visible moving to the northeast, especially from the fires in eastern Orange County, southwestern San Bernardino County, and north central San Diego County. Farther to the east, a thin plume of smoke was observed moving to the northeast from a fire in southern Coconino County of central Arizona.

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY
THROUGH 0030Z OCTOBER 27, 2007

Southern California fires (smoke across SW US):
Many large fires hotspots can still be detected well and the very strong fires including the Poomacha, Santiago, Harris, and Witch are producing very dense smoke plumes that extend due North covering all of the Santa Ana range up to S San Bernardino county. A second pocket of dense smoke is further downstream from over the central Colorado River over NW AZ and southern tip of NV and southern counties of UT. The overall plume of thin or moderately dense smoke covers a large portion of the SW of the US including: CA and coastal waters from the Mexico boarder north to 37N (east of the Sierra Nevada) and 38N within the Central Valley, along the coastal mtns the smoke extends to the southern portions of Monterey Bay and extend about 50km offshore down to the Catalina Islands...where clouds from an approaching upper level system are streaming into the area. In NV: the most dense smoke is relegated to Clark county, but thin smoke extends as far north as northern Nye county around 39N. UT: Nearly all of UT south of the Unita Mtns is covered with thin to moderate smoke. AZ: Dense smoke covers all of NW AZ including all of La Paz and Mojave counties with portions of far NE Coconino being covered by thin to moderate smoke.



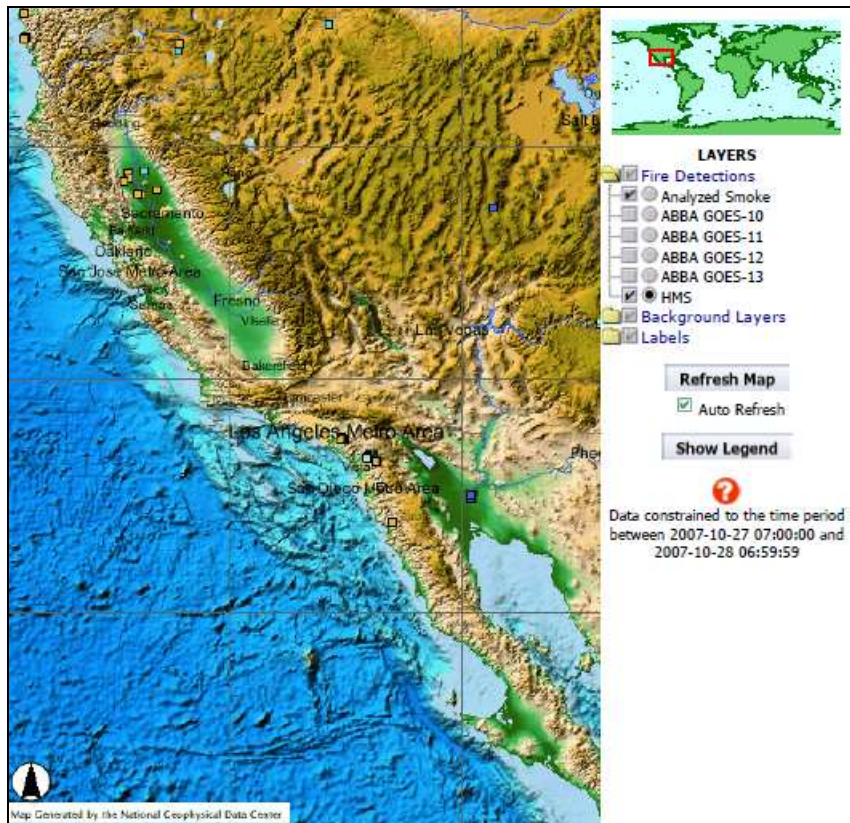
Saturday, October 27, 2007

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE IMAGERY

THROUGH 1704Z OCTOBER 27, 2007 (file mislabeled on website)

Southern California Fires:

Extensive mid and high level cloudiness has spread across California and the Great Basin, precluding smoke detection from satellite over most of the area. However, the leading edge of smoke can be seen spreading across southeast Utah and into central Colorado. It is likely that the smoke extends back to the source region in southern California and covering much of southern Utah, northwest Arizona, southern Nevada and southern California.



Sunday, October 28, 2007

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY
THROUGH 1615Z OCTOBER 28, 2007

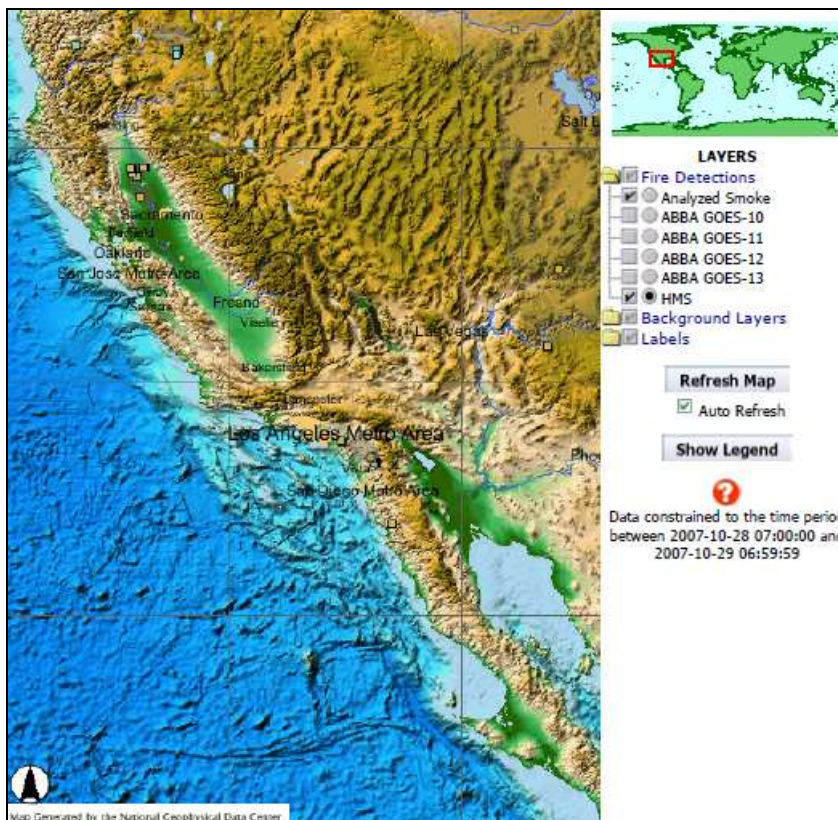
Southern California Fires:

A narrow smoke plume can still be seen emanating from a fire near Mt Palomar in northern San Diego County. A band of disperse smoke from the California fires is visible about 120-140 west of the California coast.

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY
THROUGH 0120Z OCTOBER 29, 2007

Southern California Fires:

The fires in southern California are still producing moderately dense plumes of smoke that are moving northward to northwestward; however, due to incoming clouds, the smoke cannot be seen in satellite imagery later this evening. The smoke from the southern California fires mixed with the smoke from the Arizona fires has formed a large thin to moderately dense smoke area which has covered northern Arizona, all the Utah, almost all the Colorado, southern half of Idaho, and southwestern corner of Wyoming.



Monday, October 29, 2007

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY

THROUGH 0045Z OCTOBER 30, 2007

Southern California:

Cloudiness over southern California prevented any smoke detection in the immediate vicinity of the fires.

Offshore of Central and Southern California:

Old remnant smoke offshore from the southern California fires appears to have been entrained into a low pressure system approaching the coast of central California. The northern portion of the apparent band of thin smoke reached the coastal portions of southern California near Santa Barbara and San Luis Obispo Counties by early evening.



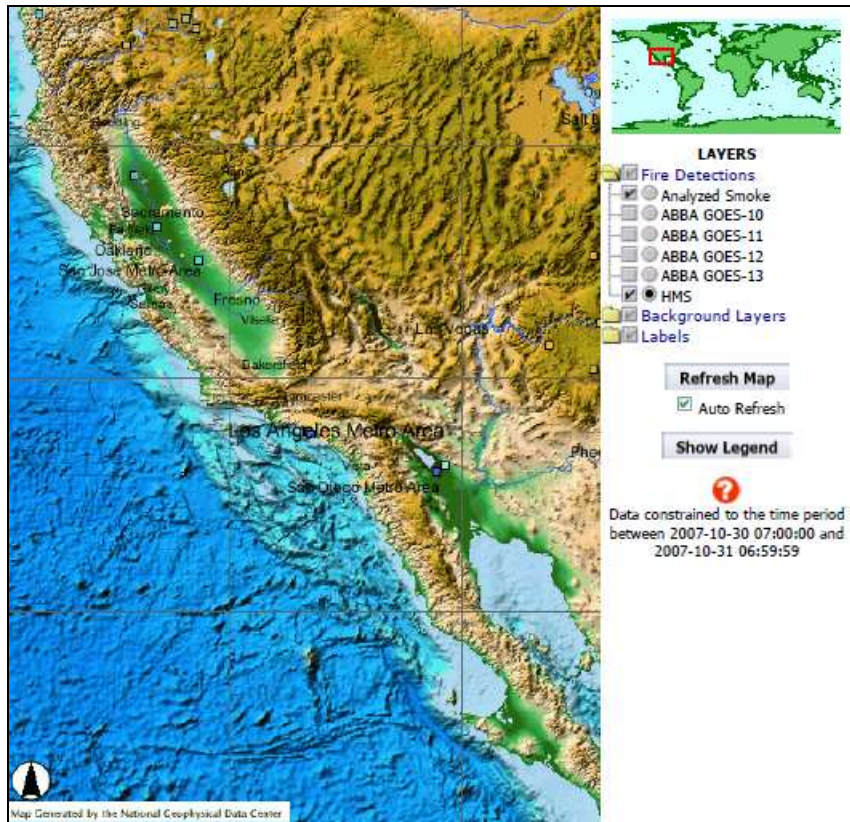
Tuesday, October 30, 2007

DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY

THROUGH 0045Z OCTOBER 31, 2007

Southern California:

Smoke was no longer visible in satellite imagery from any of the fires
in southern California.



Wednesday, October 31, 2007

**DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY
THROUGH 2345Z OCTOBER 31, 2007**

California:

A small plume of light to moderately dense smoke from a fire in western Orange county was fanning out to the northwest.

Thursday, November 01, 2007

**DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY
THROUGH 2345Z November 01, 2007**

Southern California:

A fire in eastern Orange county was producing a light to moderately dense smoke plume that was mianly drifting to the west and off the coast. Another blaze along the San Diego/Riverside border near Palomar had a plume of light smoke that was drifting to the northwest.

There was also a large area that is likely a mixture of residual smoke mixed with haze that was seen over most of the south central valley.

Friday, November 02, 2007

**DESCRIPTIVE TEXT NARRATIVE FOR SMOKE/DUST OBSERVED IN SATELLITE
IMAGERY
THROUGH 0030Z November 03, 2007**

California:

Moderate smoke extended into the Pacific Ocean from the Santiago fire located in eastern Orange County. A moderate plume of smoke also extended to the west of a fire in Mono County.

November 3 – 6, 2007

No significant areas of smoke detected in Southern California by NOAA analysts. Clouds over part of region may obscure localized smoke impacts.